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CLAIMS

What is claimed is:

1. An improved saw blade comprising:
a blade portion having two opposed sides which define a blade width, the blade portion having a high precision surface finish which is less than approximately 10 Ra; and
a cutting edge formed on the blade portion, the cutting edge having a cutting tip width.
2. An improved saw blade according to claim 1 wherein the saw blade is a straight saw blade and wherein the width of the blade portion is substantially the same as the width of the cutting tip.
3. An improved saw blade according to claim 1 wherein the saw blade includes an anti-kickback portion located circumferentially behind each cutting tip, and wherein the side surfaces of the anti-kickback portion are finished with a low friction surface.
4. An improved saw blade according to claim 1 wherein the high precision surface finish is in a range of between approximately 2 Ra and 6 Ra.
5. An improved saw blade according to claim 1 wherein the high precision surface finish is in a range of between approximately 2 Ra and 4 Ra.
6. An improved saw blade according to claim 1 wherein the high precision surface finish is approximately 6 Ra or less.
7. A method of forming a saw blade having a high precision surface finish; the process comprising the steps of

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providing a high speed centrifugal finishing apparatus having an outer vessel and at least one inner vessel;

mounting a plurality of saw blades into the inner vessel, each saw blade being spaced apart from an adjacent saw blade;

adding abrasive finishing media into the inner vessel;

rotating the inner vessel at high speed relative to the outer vessel; the high speed rotation causing the abrasive media to surface finish the blades; and

removing the blades from the inner vessel.

8. A method of forming a saw blade according to claim 7 wherein before the step of adding the abrasive, the method comprises the step of selecting an abrasive finishing media which is harder than the saw blade material.

9. A method of forming a saw blade according to claim 8 wherein the abrasive finishing media is softer than the cutting tip material.

10. A method of forming a saw blade according to claim 7 wherein the step of mounting the saw blades involves providing a central rod, placing the saw blades on the central rod; and inserting spacers between adjacent saw blades.

11. A method of forming a saw blade according to claim 10 wherein before the step of adding the abrasive, the method comprises the step of selecting an abrasive finishing media which is harder than the saw blade material.

12. A method of forming a saw blade according to claim 11 wherein the abrasive finishing media is softer than the cutting tip material.

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13. An improved saw blade comprising:
a blade portion having two opposed sides which define the blade
portion width; and

a plurality of teeth formed on the blade portion, the teeth having
opposed sides, the teeth having cutting tips formed thereon which have a width,
the sides of the teeth having a high precision surface finish which is less than
approximately 10 Ra.

14. An improved saw blade according to claim 13 wherein the
saw blade is a straight saw blade and wherein the width of the blade portion is
substantially the same as the width of the cutting tips.

15. An improved saw blade according to claim 13 wherein the
saw blade includes an anti-kickback portion located circumferentially behind
each cutting tip, and wherein at least a portion of the anti-kickback portion have
a high precision low friction surface finish.

16. An improved saw blade according to claim 13 wherein the
high precision surface finish is in a range of between approximately 2 Ra and 6
Ra.

17. An improved saw blade according to claim 13 wherein the
high precision surface finish is in a range of between approximately 2 Ra and 4
Ra.

18. An improved saw blade according to claim 13 wherein the
high precision surface finish is approximately 6 Ra or less.